

**IN THE CLAIMS**

Please cancel claims 14-16 without prejudice.

Please amend the following claims and add new claim 17.

1. (Currently amended) A method of mixing chemicals in generating a measured amount of a chemical a single semiconductor wafer cleaning process:

flowing a chemical into a valve system having a tube of a known volume;

filling said tube with said known volume with said chemical to generate a measured amount of said chemical; and

using applying said measured amount of said chemical to a semiconductor wafer in a single semiconductor wafer cleaning process.

2. (Original) The method of claim 1 wherein said valve system comprises a 6-port valve.

3. (Original) The method of claim 1 wherein said valve system comprises two 3-port valves.

4. (Currently amended) A method of mixing chemicals comprising:  
flowing a chemical into a valve system having a tube of a known volume;

filling said tube with said chemical to generate a measured amount of said chemical;

flowing DI water into said valve system and pushing said measured amount of said chemical into a chamber with said DI water; and

continuing to flow said DI water into said chamber until a predetermined level is reached in said chamber to form a mixed solution.

5. (Original) The method of claim 4 further comprising dispensing said mixed solution onto a single spinning wafer by pressurizing said chamber.

6. (Original) The method of claim 4 wherein said valve system comprises a 6-port valve.

7. (Original) The method of claim 4 wherein said valve system comprises two 3-port valves.

8. (Original) A method of mixing chemicals comprising:  
flowing a chemical into a valve system having a tube of a known volume;  
filling said tube with said chemical to generate a measured amount of said chemical;

flowing DI water into a first conduit and into a second conduit, wherein said DI water in said first conduit flows into said valve system to push said measured amount of chemical into a third conduit;

combining the flow of said measured amount of chemical and said DI water in said third conduit with said flow of DI water in said second conduit; and

dispensing said combined flow onto a spinning wafer.

9. (Original) The method claim 8 wherein said valve system comprises a 6-port valve.

10. (Original) The method of claim 8 wherein said valve system comprises two 3-port valves.

11. (Currently amended) A method of mixing chemicals comprising:  
flowing a chemical into a first valve system having a first tube of a known volume and filling said first tube with said chemical to generate a measured amount of said chemical;  
flowing DI water into a second valve system having a second tube of a known volume and filling said second tube with said DI water to generate a measured amount of said DI water; and  
flowing an inert gas into said first and second valve systems to push said measured amount of said chemical and said measured amount of said DI water into a chamber where said measured amount of chemical and said measured amount of DI are mixed together.

12. (Original) The method of claim 11 wherein said first and said second valve systems each comprise a 6-port valve.

13. (Original) The method of claim 11 wherein said first and second valve systems each comprise two 3-port valves.

14. (Canceled) Pushing a chemical into a valve system with a gas wherein said valve system has a tube of a known volume and using a hydrophobic membrane to separate the chemical and the gas when filling the tube.

15. (Canceled) The method of claim 14 wherein said valve system comprises a 6-port valve.

16. (Canceled) The method of claim 14 wherein said valve system comprises two 3-port valves.

17. (New) A method of mixing chemicals comprising:  
flowing a chemical into a valve system having a tube of a known volume;  
filling said tube with said chemical to generate a measured amount of said chemical;  
flowing DI water into said valve system and pushing said measured amount of said chemical into a chamber with said DI water;  
continuing to flow said DI water into said chamber until a predetermined level is reached to form a mixed solution; and  
dispensing said mixed solution onto a single spinning wafer by pressurizing said chamber.